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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,200	08/18/2003	Toru Shimosato	02410276US	1111

7055 7590 02/09/2006

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RESTON, VA 20191

EXAMINER

GATES, ERIC ANDREW

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/642,200	SHIMOSATO ET AL.	
	Examiner	Art Unit	
	Eric A. Gates	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,6,9, and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to Applicant's amendment filed on 25 November 2005.

Claim Rejections - 35 USC 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicant's Admitted Prior Art (AAPA) in view of *In re Dailey*.

5. Regarding claim 3, AAPA discloses in the instant specification that it is well known in the art to have an automotive knuckle comprising an inner surface and a bottom portion, wherein a fitting hole is fitted with a wheel bearing, a through hole is

Art Unit: 3722

opened to the inner surface of the fitting hole, and an open end portion of the through hole is deburred.

6. AAPA is silent as to whether a contour of the open-end portion is shaped nearly like an ellipsoid having a major axis and a minor axis. However, no advantage is provided for having the contour of the open-end portion shaped this way, as opposed to the open end portion having a circular chamfer as would be expected by deburring through the through hole. Therefore, it would have been an obvious matter of design choice to make the open-end portion whatever form or shape was desired or expedient for the purpose of accepting the wheel speed sensor. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)

7. The claimed phrase "by inserting a cutting tool... while simultaneously making the leading end portion of the through hole" is being treated as a product by process limitation; that is, that the open-end portion of the through hole is deburred as claimed. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 U.S.C. 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113. Thus, even though AAPA discloses a different method for deburring the open end portion of the through hole, it appears that the product disclosed in AAPA would be the same or similar as that claimed; especially since both applicant's claimed product and the AAPA product are of the same design. In the alternative, it

Art Unit: 3722

would have been obvious to one having ordinary skill in the art to have deburred the open end portion of the through hole through the fitting hole in order to avoid the difficulties caused by deburring through the through hole, because this would have simply involved the selection of a tool designed to deburr at an angle.

8. Regarding claim 10, the modified automotive knuckle of AAPA discloses the invention substantially as claimed.

9. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Shikata. Claims 6 and 9 are also being treated as product by process limitations. In the alternative, the modified automotive knuckle of AAPA discloses the invention substantially as claimed, except AAPA does not disclose a deburring cutting angle of 45 degrees, or the cutting tool to be a ball end mill. Shikata teaches deburring at angles between 5 and 90 degrees using a ball end mill, for the purpose of deburring surfaces that are curved. Therefore it would have been obvious to one having ordinary skill in the art to have modified the automotive knuckle of AAPA with the deburring using the angle and ball end mill of Shikata in order to deburr the open end portion of the through hole through the fitting hole.

Response to Arguments

10. Applicant's arguments, see pages 4-6, filed 25 November 2005, with respect to the rejection of claim 3 under AAPA have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of AAPA and *In re Dailey*. This rejection is

Art Unit: 3722

proper, as it includes all of the structural limitations of claim 3, including the shape of the open-end portion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Gates whose telephone number is 571-272-5498. The examiner can normally be reached on Monday-Thursday 7:45-6:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EAG
6 February 2006



BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER